System & Process Monitoring for Gas Distribution Network Operators
CUSTUMER PROFILE
Major Slovenia natural gas network operators responsible for the local gas distribution system, delivering gas safely and reliably to commercial, residential and industrial facilities. Companies looking for tailor-made Gas Management Solutions in order to improve their service. The key focus is high visibility, real-time monitoring, and control over the gas distribution network.

CHALLENGES
Natural gas distribution network operators face many crucial challenges, among those are:
• System operations and maintenance concerns
• Safety
• Demanding industry regulations and green initiatives who apply pressure to improve operational efficiency and reduce costs
• Aging infrastructure
• New smart grid technology

To assure reliable gas supply and improve operational processes, companies are investing in smart networks which provide a cost-effective framework for reliable network maintenance. Solvera Lynx addresses all aspects of gas network management including pipeline integrity management, operations management, asset management and reliable data collection.

OUR SOLUTIONS
Precise and accurate data is crucial for effective gas distribution network management. Solvera Lynx's Solutions provide a comprehensive platform which allows clients to collect valuable information and build a full understanding of asset properties and conditions. Our solutions include:
• Remote monitoring of the acquisition from the transmission network
• Remote control of cathodic protection
• Remote control of distribution substations
• Remote reading of end-user meters
• Validation and preparation of data for calculation
• Portal for accessing data for users

The GemaLogic software platform delivers the forecasting of gas supply and demand, energy management, alarm systems and event management. It enables safe and efficient gas distribution network operations by providing a clear overview of system integrity. The following functionalities of the GemaLogic Software Platform were implemented:
• Automated metering of gas consumption (natural and liquefied petroleum gas)
• System and Process Monitoring (Gas pressure, Temperatures, Statuses monitoring: system network, assets, safety release)
• Geolocation (graphic display)
• Alarm in case of system status or data value deviations
• Forecast of future gas consumption
**SYSTEM ARCHITECTURA**

**BENEFITS**

- Systematic control over the network resulting in reliable gas supply distribution
- Better understanding of distribution network conditions due to advanced visualization
- Real time monitoring, reporting, and automatic data exchange
- Alarm system implementation resulting in cost reduction due to the prevention of unwanted deviations
- Accurate predictions of future gas consumption/ Forecasting
- Determination and control over gas quality

**REFERENCES**

- Plinarna Maribor d.o.o.
- Iskrabenz plini d.o.o.
- Domplan d.d.
- Mestni plinovodi d.o.o.
- Javno podjetje Komunalna Slovenj Gradec d.o.o.
- Adriaplin d.o.o.
- Energetika Celje, javno podjetje d.o.o.
- Petrol d.o.o
- Javno podjetje komunalno podjetje Vrhnika, d. o. o.